



US 20200144676A1

(19) **United States**(12) **Patent Application Publication**
Tsuruta et al.(10) **Pub. No.: US 2020/0144676 A1**(43) **Pub. Date: May 7, 2020**(54) **CELL WITH A TABLESS ELECTRODE****H01M 4/62** (2006.01)**H01M 4/04** (2006.01)(71) Applicant: **Tesla, Inc.**, Palo Alto, CA (US)(52) **U.S. Cl.****CPC** **H01M 10/0587** (2013.01); **H01M 4/0404**
(2013.01); **H01M 4/624** (2013.01); **H01M**
2/263 (2013.01)(72) Inventors: **Kunio Tsuruta**, Mountain View, CA
(US); **Mikel Ehrlich Dermer**, Santa
Clara, CA (US); **Rajeev Dhiman**,
Pleasanton, CA (US)(21) Appl. No.: **16/673,464**(22) Filed: **Nov. 4, 2019****Related U.S. Application Data**(60) Provisional application No. 62/755,685, filed on Nov.
5, 2018.**Publication Classification**(51) **Int. Cl.****H01M 10/0587** (2006.01)**H01M 2/26** (2006.01)(57) **ABSTRACT**

A cell of an energy storage device with at least one electrode that is tabless, and methods of forming thereof, are described. The cell includes a first substrate having a first coating disposed thereon, wherein a second portion of the first substrate at a proximal end along the width of the first substrate comprises a conductive material. An inner separator is disposed over the first substrate. A second substrate is disposed over the inner separator. The second substrate has a second coating disposed thereon. The first substrate, the inner separator, and the second substrate in a successive manner, the first substrate, the inner separator, and the second substrate are rolled about a central axis.

